



PTO/SB/08A (08-03)

Approved for use through 07/31/2006, OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 11

**Complete if Known**

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
/LL/		US 4,939,515	07/08/1990	Adelson	
		US 5,161,210	11/03/1992	Druyvesteyn et al.	
		US 5,450,490	09/12/1995	Jensen et al.	
		US 5,530,751	06/25/1996	Morris	
		US 5,579,124	11/26/1996	Arijala et al.	
		US 5,721,788	02/24/1998	Powell et al.	
		US 5,828,325	10/27/1998	Wolosewicz et al.	
		US 5,912,972	06/15/1999	Barton	
		US 5,930,377	07/27/1999	Powell et al.	
		US 5,583,488	12/10/1996	Sala et al.	
		US 5,748,783	05/05/1998	Rhoads	
		US 6,330,672	12/11/2001	Shur	
		US 5,243,423	09/07/1993	DeJean et al.	
		US 5,319,735	06/07/1994	Preuss et al.	
		US 5,113,437	05/12/1992	Best et al.	
		US 4,876,617	10/24/1989	Best et al.	
		US 5,379,245	01/03/1995	Greenberg	
		US 5,446,997	07/08/1997	Barton	
/LL/		US 4,672,605	06/09/1987	Hustig et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>4</sup> Number <sup>4</sup> Kind Code <sup>4</sup> (if known)				
		European Patent No. EP056947A1	10/20/1993	Kuusama, Juha		
		WO 95/14289	05/26/1995	Rhoads, Geoffrey		
		European Patent No. 0581317A2	02/02/1994	Powell, Robert et al.		
		European Patent No. 0372601A1	06/13/1990	Druyvesteyn, Wm. et al.		
		WO 98/37513	08/27/1998	Biggar, Michael et al.		
		European Patent No. 0651534A	05/03/1995	Eastman Kodak Co.		

Examiner Signature /Laurel Lashley/ (05/26/2007)

Date Considered 05/26/2007

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

2

of

11

**Complete if Known**

Application Number

10/602,777

Filing Date

June 25, 2003

First Named Inventor

Scott A. MOSKOWITZ

Art Unit

2132

Examiner Name

Laurel L. LASHLEY

Attorney Docket Number

80391.0003

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
LL		US 4,748,668	05/31/1988	Shamir, et al.	
		US 4,789,928	12/06/1988	Fujisaki	
		US 4,908,873	03/13/1990	Philibert, et al.	
		US 4,980,782	12/25/1990	Ginkel	
		US 5,073,925	12/17/1991	Nagata, et al.	
		US 5,243,515	09/07/1993	Lee	
		US 5,287,407	02/15/1994	Holmes	
		US 5,428,606	06/27/1995	Moskowitz	
		US 5,365,586	11/15/1994	Indeck, et al.	
		US 5,394,324	02/28/1995	Clearwater	
		US 5,408,505	04/18/1995	Indeck, et al.	
		US 5,412,718	05/02/1995	Narasimhan, et al.	
		US 5,487,168	01/23/1996	Greiner, et al.	
		US 5,493,677	02/20/1996	Balagh, et al.	
		US 5,530,759	06/25/1996	Braudaway, et al.	
		US 5,606,609	02/25/1997	Houser, et al.	
		US 5,613,004	03/18/1997	Cooperman, et al.	
LL		US 5,617,119	04/01/1997	Briggs, et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		WO 97/00044	12/02/1999	Handel, Theodore et al.		
		WIPO 96/29795	09/26/1996	Micali		
		WIPO 97/24833	07/10/1997	Micali		

Examiner  
Signature

/Laurel Lashley/ (05/26/2007)

Date  
Considered

05/26/2007

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	3	of	11
-------	---	----	----

**Complete if Known**

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

## U. S. PATENT DOCUMENTS

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
LL		US 4,528,588	07/09/1985	Lofberg	
		US 5,832,119	11/03/1998	Rhoads	
		US 5,859,920	01/12/1999	Daly et al.	
		US 4,979,210	12/18/1990	Nagata et al.	
		US 5,774,452	06/30/1998	Wolosewicz	
		US 4,405,829	09/20/1983	Rivest et al.	
		US 6,330,335	12/11/2001	Rhoads	
		US 3,986,624	10/19/1976	Cates Jr. et al.	
		US 5,363,448	11/8/1994	Koopman et al.	
		US 5,568,570	10/22/1996	Rabbani	
		US 5,636,292	06/03/1997	Rhoads	
		US 4,972,471	11/20/1990	Gross et al.	
		US 5,893,067	04/06/1999	Bender et al.	
		US 5,689,587	11/18/1997	Bender et al.	
		US 3,984,624	10/05/1976	Waggener	
		US 4,038,596	07/26/1977	Lee	
		US 4,200,770	04/29/1980	Hellman, et al.	
		US 4,218,582	08/19/1980	Hellman, et al.	
LL		US 4,424,414	01/03/1984	Hellman, et al.	

**FOREIGN PATENT DOCUMENTS**

[illegible]

**Examiner  
Signature**

/Laurel Lashley/ (05/26/2007)

Date  
Considered

05/26/2007

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**

**Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.**

**Complete if Known**

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

**(Use as many sheets as necessary)**

Sheet	4	of	11	Attorney Docket Number
-------	---	----	----	------------------------

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
ILLI		US- 5,640,569	06/17/1997	Miller, et al.	
		US- 5,659,726	08/19/1997	Sandford, II, et al.	
		US- 5,664,018	09/02/1997	Leighton	
		US- 5,687,236	11/11/1997	Moskowitz, et al.	
		US- 5,734,752	03/31/1998	Knox	
		US- 5,745,569	04/28/1998	Moskowitz, et al.	
		US- 5,506,795	04/09/1996	Yamakawa	
		US- 5,680,462	10/21/1997	Miller, et al.	
		US- 5,696,828	12/09/1997	Koopman, Jr.	
		US- 5,740,244	04/14/1998	Indock, et al.	
		US- 5,751,811	05/12/1998	Koopman, Jr.	
		US- 5,757,923	05/26/1998	Koopman, Jr.	
		US- 5,889,868	03/30/1999	Moskowitz, et al.	
		US- 6,208,745	03/27/2001	Florenio, et al.	
		US- 6,285,775	09/04/2001	Wu, et al.	
		US- 6,385,329	05/07/2002	Sharma, et al.	
		US- 6,530,021	03/04/2003	Epstein, et al.	
ILLI		US- 6,425,081	07/23/2002	Iwamura	

[illegible]

Date Considered	05/26/2007
-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant: <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

***If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.***

***If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.***

~~Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.~~

**Complete if Known**

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

Sheet	6	of	11	Attorney Docket Number
-------	---	----	----	------------------------

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code? (if known)			
LLI		US 5,930,369	07/27/1999	Cox, et al.	
		US 6,415,041	07/02/2002	Oami, et al.	
		US 6,141,753	10/31/2000	Zhao, et al.	
		US 2002/0047873	07/25/2002	Petrovic	
		US 6,785,815	08/21/2004	Serret-Aviles, et al.	
		US 6,523,113	02/18/2003	Wehrenberg	
		US 6,233,347	05/15/2001	Chen, et al.	
		US 6,233,684	05/15/2001	Stefik, et al.	
		US 2006/0013395	01/19/2006	Brundage, et al.	
		US 7,043,050	05/09/2006	Yuval	
		US 5,809,160	09/15/1998	Powell, et al.	
		US 6,272,634	08/07/2001	Tewfik, et al.	
		US 6,282,650	08/28/2001	Davis	
		US 6,557,103	04/29/2003	Boncelet, Jr., et al.	
		US 2003/0126445	07/03/2003	Wehrenberg	
		US 6,978,370	12/20/2005	Kocher	
		US 2006/0005029	01/05/2006	Petrovic, et al.	
LLI		US 6,278,791	08/21/2001	Honsinger, et al.	

[illegible]

05/26/2007

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

05/26/2007

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**Complete If Known**

(Use as many sheets as necessary)

Sheet	7	of	1
-------	---	----	---

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cita No.†	Document Number Number-Kind Code* (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
LLI		US- 6,061,793	05/09/2000	Tewfik, et al.	
		US- 5,809,139	09/15/1998	Girod, et al.	
		US- 5,848,155	12/08/1998	Cox	
		US- 5,915,027	06/22/1999	Cox, et al.	
		US- 5,940,134	08/17/1999	Wirtz	
		US- 5,991,426	11/23/1999	Cox et al.	
		US- 6,069,914	05/30/2000	Cox	
		US- 5,943,422	08/24/1999	Van Wie, et al.	
		US- 6,539,475	03/25/2003	Cox, et al.	
		US- 6,310,962	10/30/2001	Chung, et al.	
		US- 6,154,571	11/28/2000	Cox, et al.	
		US- 4,969,204	11/06/1990	Jones, et al.	
		US- 6,687,683	02/03/2004	Harada, et al.	
		US- 6,373,892	04/16/2002	Ichien, et al.	
		US- 5,870,474	02/09/1999	Wasilewski, et al.	
		US- 5,418,713	05/23/1995	Allen	
		US- 6,078,664	06/20/2000	Mostowitz, et al.	
		US- 6,009,126	12/28/1999	Gennaro, et al	
LLI		US- 6,081,597	06/27/2000	Hoffstein, et al.	

[illegible]

Examiner Signature	/Laurel Lashley/ (05/26/2007)
-----------------------	-------------------------------

Date Considered	05/26/2007
-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

**If you need assistance in completing the form, call 1-800-PTC-9199 (1-800-786-9199) and select option 2.**

Substitute for form 1449/PTO

*(Use as many sheets as necessary)*

Sheet	8	of	10
-------	---	----	----

**Complete If Known-**

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

## U. S. PATENT DOCUMENTS

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.†	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
LL		US- 6,598,162	07/22/2003	Moskowitz	
		US- 6,275,988	08/14/2001	Nagashima, et al.	
		US- 6,051,029	04/10/2000	Peterson, et al.	
		US- 5,917,915	06/29/1999	Hirose	
		US- 6,775,772	08/10/2004	Brading, et al.	
		US- 6,668,246	12/23/2003	Yeung, et al.	
		US- 6,351,765	02/26/2002	Pietropaolo, et al.	
		US- 6,049,838	04/11/2000	Miller, et al.	
		US- 5,398,285	03/14/1995	Borgeit, et al.	
		US- 5,737,733	04/07/1998	Eller	
		US- 2002/0103883	08/01/2002	Haverstock, et al.	
		US- 5,673,316	09/30/1997	Auerbach, et al.	
		US- 6,647,424	11/11/2003	Pearson, et al.	
		US- 6,977,894	12/20/2005	Achilles, et al.	
		US- 6,453,252	09/17/2002	Larache	
		US- 5,077,665	12/31/1991	Silverman, et al.	
		US- 5,136,581	08/04/1992	Muehrcke	
		US- 5,341,477	08/23/1994	Pitkin, et al.	
LL		US- 5,581,703	12/03/1996	Baughner, et al.	

**FOREIGN PATENT DOCUMENTS**

[illegible]

**Examiner  
Signature**

/Laurel Lashley/ (05/26/2007)

Date Considered

05/26/2007

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete If Known**

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

Sheet 9 of 11

**U. S. PATENT DOCUMENTS**

U. S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
/LL/		US-	5,548,579	08/20/1996	Lebrun, et al.	
		US-	5,905,975	05/18/1999	Ausubel	
		US-	6,457,058	09/24/2002	Ullum et al.	
		US-	6,381,618	04/30/2002	Jones et al.	
		US-	2002/0026343	02/28/2002	Duenke	
		US-	6,230,268	05/08/2001	Miwa et al.	
		US-	6,199,058	03/06/2001	Wong et al.	
		US-	5,920,900	07/06/1999	Poole et al.	
		US-	5,884,033	03/16/1999	Duvall et al.	
		US-	5,478,990	12/26/1995	Montanari et al.	
		US-	6,430,302	08/06/2002	Rhoads	
		US-	6,725,372	04/20/2004	Lewis et al.	
		US-	6,606,393	08/12/2003	Xie et al.	
		US-	6,584,125	06/24/2003	Katto	
		US-	6,442,283	08/27/2002	Tewfik et al.	
		US-	6,377,625	04/23/2002	Kim	
		US-	6,282,300	08/28/2001	Bloom et al.	
		US-	6,205,249	03/20/2001	Moskowitz	
/LL/		US-	6,029,126	02/22/2000	Malvar	

**FOREIGN PATENT DOCUMENTS**

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>4</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)					

Examiner  
Signature

/Laurel Lashley/ (05/26/2007)

Date  
Considered

05/26/2007

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.18 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1442/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 10

Application Number
Filing Date
First Named Inventor
Art Unit
Examiner Name
Attorney Docket Number

10/602,777  
June 25, 2003  
Scott A. MOSKOWITZ  
2132  
Laurel L. LASHLEY  
80391.0003

U. S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if necessary)			
LL		US- 5,754,697	05/19/1998	Fu et al.	
		US- 5,479,210	12/26/1995	Cawley et al.	
		US- 3,947,825	03/30/1976	Cassada	
		US- 5,903,721	05/11/1999	Sixtus	
		US- 5,790,637	08/04/1998	Fox et al.	
		US- 5,243,515	09/07/1993	Clearwater	
		US- 4,339,134	08/13/1982	Macheel	
		US- 4,827,508	05/02/1989	Shear	
		US- 4,896,275	01/23/1990	Jackson	
		US- 4,977,594	12/11/1990	Shear	
		US- 5,050,213	09/17/1991	Shear	
		US- 5,369,707	11/29/1994	Follendores III	
		US- 5,406,627	04/11/1995	Thompson et al.	
		US- 5,410,598	04/25/1995	Shear	
		US- 5,469,536	11/21/1995	Blank	
		US- 5,497,419	03/05/1996	Hill	
		US- 5,513,261	04/30/1996	Maier	
		US- 5,530,739	06/25/1996	Okada	
LL		US- 5,598,470	01/28/1997	Cooper et al.	

[illegible]

Signature /Laurel Lashley/ (05/26/2007)	Date Considered 05/26/2007
--	----------------------------------

Signature \_\_\_\_\_

Examiner: **EXAMINER:** If reference considered, whether or not citation is in conformance with MPEP 806, enter this through citation if not in performance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Code of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.2). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Ind of document by the appropriate symbol as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language transcription is adapted.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1463, Alexandria, VA 22313-1463.** 1-800-577-0199 (1-800-783-0168) and select option 2.

For Patent, P.O. Box 1403, Alexandria, VA 22313-1403.  
If you need assistance in completing the form, call 1-800-PTO-0169 (1-800-758-0169) and select option 2.

### Complete Knowledge

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	11	of	12
-------	----	----	----

Application Number
Filing Date
First Named Inventor
Art Unit
Examiner Name
Attorney Docket Number

**10/602,777**  
**June 25, 2003**  
**Scott A. MOSKOWITZ**  
**2132**  
**Laurel L. LASHLEY**  
**80391.0003**

**U.S. PATENT DOCUMENTS**

Examiner Initials*		Case No.	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
			Number and Code <sup>2</sup> if any				
↓	LL/		US-	5,625,690	04/29/1997	Michel et al.	
			US-	5,632,932	05/27/1997	Davis et al.	
			US-	5,719,937	02/17/1998	Warren et al.	
			US-	5,737,416	04/29/1998	Cooper et al.	
			US-	5,765,152	06/09/1998	Erickson	
			US-	5,799,083	08/25/1998	Brothers et al.	
			US-	5,973,731	12/26/1999	Schwab	
			US-	5,894,521	04/13/1999	Conley	
			US-	5,905,800	05/18/1999	Moskowitz et al.	
			US-	5,963,909	10/05/1999	Warren et al.	
			US-	5,974,141	10/26/1999	Saito	
			US-	5,999,217	12/07/1999	Berners-Lee	
			US-	6,041,316	03/21/2000	Allen	
			US-	6,081,251	06/27/2000	Sakai et al.	
			US-	6,278,780	08/21/2001	Shimada	
LL/		US-	6,301,663	10/09/2001	Kato et al.		
		US-	6,240,121	05/29/2001	Senoh		
		US-					

**FOR THE PATENT OFFICE**[illegible]

Examiner Signature	/Laurel Lashley/ (05/26/2007)	Date Considered	05/26/2007
-----------------------	-------------------------------	--------------------	------------

\*EXAMINER: With a reference considered, whether or not citation is in compliance with MPEP 808, draw line through citation if not in compliance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). \*See (Minds Code) of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. \*Enter Office that issued the document, by the two-letter code (WIPO Standard 87.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Ind of document by the appropriate symbol as indicated on the document under WIPO Standard 87.10 if possible. \*Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.99. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1480, Alexandria, VA 22313-1480. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1480, Alexandria, VA 22313-1480.

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/602,777
Filing Date	June 25, 2003
First Named Inventor	Scott A. MOSKOWITZ
Art Unit	2132
Examiner Name	Laurel L. LASHLEY
Attorney Docket Number	80391.0003

Sheet	1	of	6
-------	---	----	---

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/LL/		Schneier, Bruce, <u>Applied Cryptography</u> , 2 <sup>nd</sup> Ed., John Wiley & Sons, pp. 9-10, 1996.	
		Menezes, Alfred J., <u>Handbook of Applied Cryptography</u> , CRC Press, p. 46, 1997	
		Merriam-Webster's Collegiate Dictionary, 10 <sup>th</sup> Ed., Merriam Webster, Inc., p. 207.	
		Brealy, et al., <u>Principles of Corporate Finance</u> , "Appendix A - Using Option Valuation Models", 1984, pp. 448-449.	
		Copeland, et al., <u>Real Options: A Practitioners Guide</u> , 2001 pp 106-107, 201-202, 204-208.	
		Sarkar M. "An Assessment of Pricing Mechanisms for the Internet - A Regulatory Imperative" presented MIT Workshop on Internet Economics, Mar. 1995 <a href="http://www.press.umich.edu/jep/works/SarkAssess.html">http://www.press.umich.edu/jep/works/SarkAssess.html</a> on Mar 12, 1995	
		Crawford, D.W. "Pricing Network Usage: A Market for Bandwidth of Market Communication?" presented MIT Workshop on Internet Economics, Mar. 1995 <a href="http://www.press.umich.edu/jep/works/CrawMarket.html">http://www.press.umich.edu/jep/works/CrawMarket.html</a> on March 12, 1995.	
↓		LOW, S.H. "Equilibrium Allocation and Pricing of Variable Resources Among User-Suppliers", 1988. <a href="http://www.citeseer.nj.nec.com/366503.html">http://www.citeseer.nj.nec.com/366503.html</a> .	
		Caronni, Germano, "Assuring Ownership Rights for Digital Images", published <u>Proceedings of Reliable IT Systems</u> , Vol. 15, H.-H. Brüggemann and W. Gerhardt-Häkel (Ed.), Vieweg Publishing Company, Germany, 1995.	
/LL/		Zhao, Jian. "A WWW Service to Embed and Prove Digital Copyright Watermarks", <u>Proc. of the European Conf. on Multimedia Applications, Services &amp; Techniques</u> , Louvain-La-Neuve, Belgium, May 1996.	

Examiner Signature	/Laurel Lashley/ (05/26/2007)	Date Considered	05/26/2007
--------------------	-------------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO		Complete If Known			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/602,777		
		Filing Date	June 25, 2003		
		First Named Inventor	Scott A. MOSKOWITZ		
		Art Unit	2132 Laurel L. LASHLEY		
		Examiner Name	80391.0003		
Sheet	2	of	6	Attorney Docket Number	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/LL/		Gruhl, Daniel et al., <u>Echo Hiding</u> , In <u>Proceeding of the Workshop on Information Hiding</u> , No. 1174 in <u>Lecture Notes in Computer Science</u> , Cambridge, England (May/June 1996).	
		Oomen, A. W. J. et al., <u>A Variable Bit Rate Buried Data Channel for Compact Disc</u> , J. Audio Eng. Soc., Vol. 43, No. 1/2, pp. 23-28 (1995).	
		Ten Kate, W. et al., <u>A New Surround - stereo - Surround Coding Techniques</u> , J. Audio Eng. Soc., Vol. 40, No. 5, pp. 376-383 (1992).	
		Grezon, Michael et al., <u>A High Rate Buried Data Channel for Audio CD</u> , presentation notes, <u>Audio Engineering Soc. 94th Convention</u> (1993).	
		Sklar, Bernard, <u>Digital Communications</u> , pp 601-608 (1988)	
		Jayant, N. S. et al., <u>Digital Coding of Waveforms</u> , Prentice Hall Inc., Englewood Cliffs, NJ, pp. 486-509 (1984)	
		Bender, Walter R. et al., <u>Techniques for Data Hiding</u> , SPIE Int. Soc. Opt. Eng., Vol. 2420, 164-173, 1995.	
		Zhao, Jian et al., <u>Embedding Robust Labels into Images for Copyright Protection</u> , (XP 000571967), pp. 242-251, 1995.	
		Menezes, Alfred J., <u>Handbook of Applied Cryptography</u> , CRC Press, p. 175, 1997.	
/LL/		Schneier, Bruce, <u>Applied Cryptography</u> , 1st Ed., pp 67-68, 1994.	

Examiner Signature	/Laurel Lashley/ (05/26/2007)	Date Considered	05/26/2007
--------------------	-------------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		<b>Complete if Known</b>			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/602,777		
		Filing Date	June 25, 2003		
		First Named Inventor	Scott A. MOSKOWITZ		
		Art Unit	2132		
		Examiner Name	Laurel L. LASHLEY		
Sheet	3	of	6	Attorney Docket Number	80391.0003

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/LL/		ten Kate, W. et al., "Digital Audio Carrying Extra Information", IEEE, CH2847-2/90/0000-1097, (1990)	
		van Schyndel, et al. <u>A Digital watermark</u> , IEEE Int'l Computer Processing Conference, Austin, TX, Nov 13-16, 1994, pp 86-90.	
		Smith, et al. <u>Modulation and Information Hiding in Images</u> , Springer Verlag, 1st Int'l Workshop, Cambridge, UK, May 30-June 1, 1996, pp 207-227.	
		Kutter, Martin et al., <u>Digital Signature of Color Images Using Amplitude Modulation</u> , SPIE-E197, Vol. 3022, pp. 518-527	
		Puate, Joan et al., <u>Using Fractal Compression Scheme to Embed a Digital Signature into an Image</u> , SPIE-96 Proceedings, Vol. 2915, Mar. 1997, pp. 108-118.	
		Swanson, Mitchell D., et al., <u>Transparent Robust Image Watermarking</u> , Proc. of the 1996 IEEE Int'l Conf. on Image Processing, Vol. III, 1996, pp. 211-214	
		Swanson, Mitchell D., et al., <u>Robust Data Hiding for Images</u> , 7th IEEE Digital Signal Processing Workshop, Leon, Norway, Sept. 1-4, 1996, pp 37-40.	
		Zhao, Jian, et al., <u>Embedding Robust Labels into Images for Copyright Protection</u> , Proceedings of the KnowRight '95 Conference, pp. 242-251	
		Koch E, et al., <u>Towards Robust and Hidden Image Copyright Labeling</u> , 1995 IEEE Workshop on Nonlinear Signal and Image Processing, Jun 1995, Neos Marmaras, pp. 4	
/LL/		van Schyndel, et al., <u>Towards a Robust Digital Watermark</u> , Second Asian Image Processing Conference, Dec 6-8, 1995, Singapore, Vol 2, pp. 504-508	

Examiner Signature	/Laurel Lashley/ (05/26/2007)	Date Considered	05/26/2007
--------------------	-------------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.87 and 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		<b>Complete If Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/602,777
		Filing Date	June 25, 2003
		First Named Inventor	Scott A. MOSKOWITZ
		Art Unit	2132
		Examiner Name	Laurel L. LASHLEY
		Attorney Docket Number	80391.0003
Sheet	4	of	6

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
LLU		Tirkel, A.Z., <u>A Two-Dimensional Digital Watermark</u> , DICTA '95, Univ. of Queensland, Brisbane, Dec 5-8, 1995, pp. 7	
		Tirkel, A.Z., <u>Image Watermarking - A Spread Spectrum Application</u> , ISSSTA '96, Sept. 96, Mainz, Germany, pp. 6	
		O'Ruanaidh et al., <u>Watermarking Digital Images for Copyright Protection</u> , IEE Proceedings, Vol. 143, No. 4, Aug. 96, pp. 250-256.	
		Cox et al., <u>Secure Spread Spectrum Watermarking for Multimedia</u> , NEC Research Institute, Technical Report 95-10, pp. 33.	
		Kahn, D., <u>The Code Breakers</u> , The MacMillan Company, 1969, pp. xiii, 81-83, 513, 515, 522-526, 863.	
		Boney, et al., <u>Digital Watermarks for Audio Signals</u> , EVSI PC096, pp. 473-480.	
		Dept. of Electrical Engineering, Delft University of Technology, Delft, The Netherlands, G.C. Langelaar et al., <u>Copy Protection for Multimedia Data based on Labeling Techniques</u> , July 1996, 9 pp.	
		F. Hartung, et al., <u>Digital Watermarking of Raw and Compressed Video</u> , SPIE Vol. 2952, pp. 205-213.	
		Craver, et al., <u>Can Invisible Watermarks Resolve Rightful Ownership?</u> IBM Research Report, RC 20509 (July 25, 1996) 21 pp.	
LLU		Press, et al., <u>Numerical Recipes In C</u> , Cambridge Univ. Press, 1988, pp. 398-417.	

Examiner Signature	/Laurel Lashley/ (05/26/2007)	Date Considered	05/26/2007
--------------------	-------------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/602,777
		Filing Date	June 25, 2003
		First Named Inventor	Scott A. MOSKOWITZ
		Art Unit	2132
		Examiner Name	Laurel L. LASHLEY
Sheet 5 of 6	Attorney Docket Number	80391.0003	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/LL/		Pohlmann, Ken C., <u>Principles of Digital Audio</u> , 3 <sup>rd</sup> Ed., 1995, pp. 32-37, 40-48, 138, 147-149, 332, 333, 364, 499-501, 508-509, 564-571.	
		Pohlmann, Ken C., <u>Principles of Digital Audio</u> , 2 <sup>nd</sup> Ed., 1991, pp. 1-9, 19-25, 30-33, 41-48, 54-57, 86-107, 375-387.	
		Schneier, Bruce, <u>Applied Cryptography</u> , John Wiley & Sons, Inc., New York, 1994, pp. 68-69, 387-392, 1-57, 273-275, 321-324.	
		Boney, et al., <u>Digital Watermarks for Audio Signals</u> , Proceedings of the International Conf. on Multimedia Computing and Systems, June 17-23, 1996, Hiroshima, Japan, 0-8186-7436-9/96, pp. 473-480.	
		Johnson, et al., <u>Transform Permuted Watermarking for Copyright Protection of Digital Video</u> , IEEE Globecom 1998, Nov 8-12, 1998, New York, New York, Vol. 2, 1998, pp. 684-689. (ISBN 0-7803-4985-7)	
		Rivest, et al., "PayWord and micromint: Two simple micropayment schemes," MIT Laboratory for Computer Science, Cambridge, MA, May 7, 1996, pp. 1-18	
		Rivest, et al., "Pay word and micromint: Two simple micropayment schemes," MIT Laboratory for Computer Science, Cambridge, MA, Apr. 27, 2001, pp. 1-18.	
		Bender, et al., <u>Techniques for Data Hiding</u> , IBM Systems Journal, Vol. 35, No. 3/4, 1996, pp. 313-336.	
		Moskowitz, <u>Bandwidth as Currency</u> , IEEE MultiMedia, Jan-Mar 2003, pp. 14-21.	
/LL/		Moskowitz, <u>Multimedia Security Technologies for Digital Rights Management</u> , 2006, Academic Press, "Introduction - Digital Rights Management", pp. 3-22.	

Examiner Signature	/Laurel Lashley/ (05/26/2007)	Date Considered	05/26/2007
--------------------	-------------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Substitute for form 1449B/PTO		Complete if known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/602,777
		Filing Date	June 25, 2003
		First Named Inventor	Scott A. MOSKOWITZ
		Art Unit	2132
		Examiner Name	Laurel L. LASHLEY
		Attorney/Agent Number	80391.0003
Sheet	6	of	6

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published.	P <sup>o</sup>
/LL/		Tomsich, et al., "Towards a Secure and De-centralized digital watermarking infrastructure for the protection of intellectual property", in <i>Electronic Commerce and Web Technologies, Proceedings (ECWEB 2000)</i> , Springer LNCS, vol. 1875, 2000, pp. 38-47.	
		Moskowitz, "What is Acceptable Quality in the Application of Digital Watermarking: Trade-offs of Security, Robustness and Quality", <i>IEEE Computer Society, Proceedings of ITCL 2002</i> , April 8-10, 2002, pp. 80-84.	
		Lemas, et al., "Secure Watermark Embedding through Partial Encryption", <i>International workshop on Digital Watermarking (IWDM 2006)</i> , Springer Lecture Notes in Computer Science, 2006, (to appear) 13 pages.	
		Kocher, et al., "Self Protecting Digital Content", <i>Technical Report from the CRI Content Security Research Initiative, Cryptography Research, Inc.</i> 2002-2003, 14 pages.	
		Sirbu, M. et al., "Net Bill: An Internet Commerce System Optimized for Network Delivered Services", <i>Digest of Papers of the Computer Society Computer Conference (Spring)</i> , 5 March 1995, pp. 20-25, vol. CONF40, Compcon, IEEE Comp. Soc. Press.	
		Schunter, M. et al., "A status report on the SEMPER framework for secure Electronic Commerce", <i>Computer Networks and ISDN Systems</i> , 30 Sept 1996, pp. 1501-1510, Vol. 30, No. 16-18, N.L. North Holland Publishing, Amsterdam.	
		Konrad, K. et al., "Trust and electronic commerce - more than a technical problem", <i>Proceedings of the 18th IEEE Symposium on Reliable Distributed Systems</i> , 19-22 October 1999, pp. 360-365, Lausanne, Switzerland.	
		Kini, A. et al., "Trust in Electronic Commerce: Definition and Theoretical Considerations", <i>Proceedings of the 31st Hawaii Int'l Conf on System Sciences (cat. No. 98TB100216)</i> , 6-9 January 1998, pp. 51-61, Los Alamitos, CA, USA IEEE Comp Soc.	
↓		Steinqvist, D.O. et al., "Trust and Traceability in Electronic Commerce", <i>Standard View</i> , Sept 1997, pp. 118-124, Vol. 5 No. 3, ACM, USA.	
/LL/		Hunting, et al., "Multimedia Watermarking Techniques", <i>Proceedings of the IEEE, Special Issue, Identification &amp; Protection of Multimedia Information</i> , pp. 1079-1107, July 1999, Vol. 87 No. 7 IEEE.	

Examiner Signature	/Laurel Lashley/ (05/26/2007)	Date Considered	05/26/2007
--------------------	-------------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with need communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to be (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1480, Alexandria, VA 22313-1480. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1480, Alexandria, VA 22313-1480.

If you need assistance in completing the form, call 1-800-PTO-6169 and select option 2.